

ARC 105

Techniques of

Architectural Presentation

Architecture -Class I

Lecture 01

Izmir Democracy University, Faculty of Architecture, Department of
Architecture

Instructors

- Assoc. Prof. (PhD) Sibel Macit İlal
- Assist. Prof. (PhD) Pınar Kılıç Özkan

Objectives

- Examining and comprehending the **vocabulary** and **principles** of **architectural drawing and architectural presentation**
- Introducing the **tools** and **equipment** used in architectural drawings;
- Teaching
 - pencil drawing technique;
 - The concept of scale,
 - projection methods,
 - isometric-kavalier-military perspective drawing,
 - the relationship between architecture-topography, site plan,
 - plan, section, view drawing and
 - representation techniques in 1/500, 1/200 and 1/100 scales
- To improve the architectural drawing and presentation techniques by gaining skills on 2 and 3 Dimensional perception / expression

Content

- Technical Drawing: -
 - The Definition Of Architectural Tools and Using Principles;
 - Projection Concepts;
 - Scale;
- Descriptive Geometry: -
 - Projection Concepts;
 - Projections Of Points, Lines, Planes and Various Objects and Their Relations With Each Other;
 - Axonometric Perspectives
- Preliminary Project Technique (1/100);
 - Site Plan and Land Section;
 - Vertical Circulation Elements;
 - Settlement Plans and Sections;

Learning Outcomes

- To gain skills on using architectural drawing tools
- To gain knowledge about architectural presentation and drawing techniques
- To gain 2 and 3 Dimensional thinking skills
- To gain skills for 2 and 3 Dimensional presentation of the design
- Comprehension of orthographic projection method
- Understanding the concepts of plan, section, view and site plan in architecture and to learn representation techniques in 1/200, 1/100 scales;

Course Structure

ARC105-Techniques of Architectural Presentation			
Week	Date	Topic	
Week 1	1.10.2024	Lecture1-Introduction	
Week 2	8.10. 2024	Lecture2-Architectural Drafting	SW01
Week 3	15.10. 2024	Lecture 3: Projections	SW02
Week 4	22.10.2024	Lecture 4 Orthographic projection	SW03
Week 5	29.10. 2024	Republic Day	
Week 6	5.11. 2024	Lecture5: Orthographic Section Drawing	SW04
Week 7	12.11. 2024	Lecture 6: Axonometric (Isometric-dimetric-Trimetric)	SW05
Week 8	19.11. 2024	MIDTERM	
Week 9	26.11. 2024	Lecture 7: Oblique Drawing	SW06
Week 10	3.12. 2024	Lecture 8: Design and Construction Drawings - Site Plan	SW07
Week 11	10.12. 2024	SW08	
Week 12	17.12. 2024	Lecture9: Architectural Section-Elevations	SW09
Week 13	24.12. 2024	SW10	
Week 14	31.12. 2024	Lecture10: Site Section	SW11
Week 15	7.01. 2025	Lecture 11: Onepoint-Twopoint Perspective	SW12
Week 16	14.01.2025	General Overview/Q&A	
Week 17	20-31.01.2025	FINAL	

Operational Procedures of the Studio

- The course will be held on every **Tuesday** from **12:45** to **16:15** in the Fall term.
- The lectures and studio-works will be held **face to face in the Studio**. Microsoft teams will be used for course documents, Assignment submissions, and pop-up announcements.

TEAMS CODE: **ntvi1aw**

- Attendance is compulsory. Please aware that according to İZMİR DEMOKRASİ ÜNİVERSİTESİ ÖN LİSANS VE LİSANSEĞİTİM-ÖĞRETİM VE SINAV YÖNETMELİĞİ, “Teorik ders saatlerinin %30’undan, uygulama ders saatlerinin de %20’sinden fazlasına katılmayan öğrenci devamsız sayılır ve o dersin yarıyıl sonu sınavına giremez.”

Grading and Weights

The grades will be determined Assignments (Studio-works and Home-works), Midterm and Final submissions.

MIDTERM	Midterm Submission Grade	40%	MIDTERM GRADE %40
FINAL	Final Submission Grade	60%	FINAL GRADE %60
	Assignments (SWs + HWs)		
Total		100%	

Assignments

The assignments (studio-work and home-works) will be weekly exercises, and cover students' individual answers to the questions related with the contents of the lectures.

The students are responsible from all the issues discussed in the lectures and assignments until the evaluation dates.

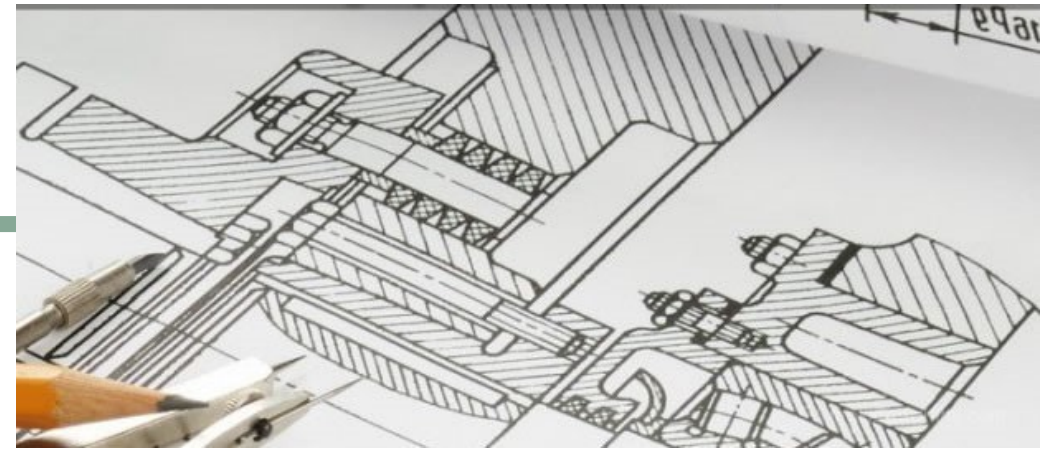
The assignments, midterm and final evaluations will be graded over 100 points.

Recommended Reading

- Ching F.D.K., **Design Drawing**, John Wiley&Sons, 1997.
- Ching F.D.K., **Architectural Graphics**, John Wiley&Sons, 2015.
- Şahinler,O.-Kızıl, F.,**Mimarlıkta Teknik Resim**, İDSGA, 1975.

Technical Drawing

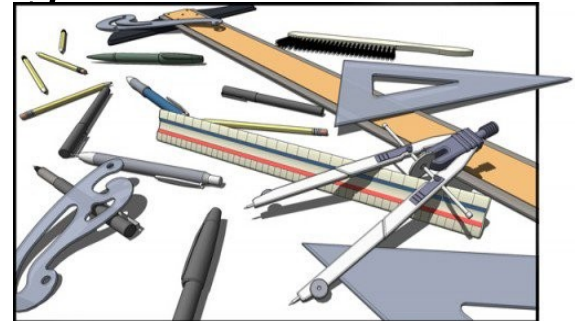
Technical drawing, is the act and discipline of composing drawings that **visually communicate** how something functions or is constructed.



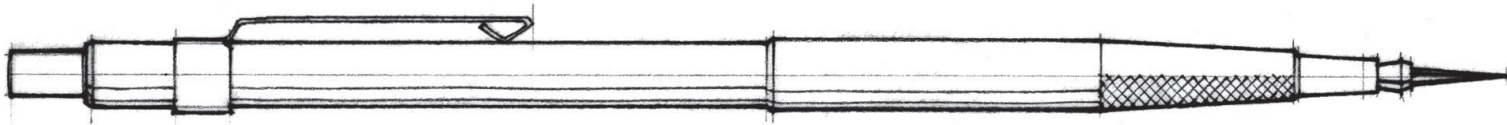
- To make the drawings easier to understand, people use **familiar symbols, perspectives, units of measurement, notation systems, visual styles, and page layout**. Together, such conventions constitute a visual language and help to ensure that the drawing is unambiguous and relatively easy to understand. Many of the symbols and principles of technical drawing are codified in an international standard called ISO 128.
- Technical drawings can be drawn **freehand, with drawing tools and equipment or in computer environment**.

Drawing Tools and Materials

While digital technology continues to further augment and enhance this traditional drawing toolkit, the kinesthetic act of drawing with a handheld pencil or pen remains the most direct and versatile means of learning the language of architectural graphics.

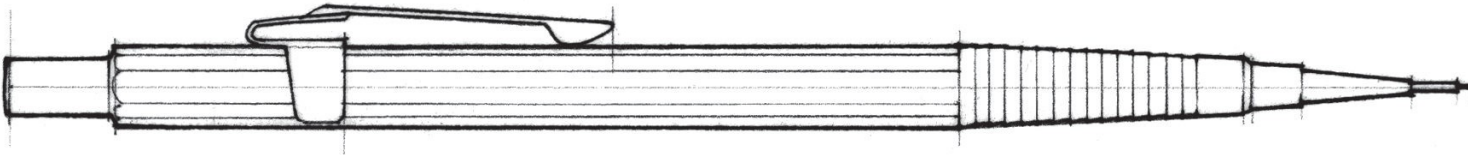


Drawing Pencils



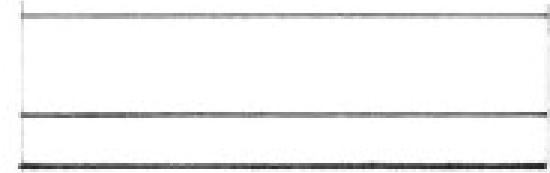
- Lead holders employ standard 2 mm leads.

- **Lead Holders** (Eskiz Kalemi)



- 0.3 mm pencils yield very fine lines, but the thin leads are susceptible to breaking if applied with too much pressure.
- 0.5 mm pencils are the most practical for general drawing purposes.
- 0.7 mm and 0.9 mm pencils are useful for sketching and writing

- **Mechanical Pencils**



- typically used for freehand drawing and sketching.

- **Wood-Encased Pencils**

Grades of Graphite Lead

4H, 2H

- Used for marking and laying out drawings and light construction lines.
- The thin, light lines are difficult to read and reproduce and should therefore not be used for finish drawings.

F and H

These are general-purpose grades of lead suitable for layouts, finish drawings, and hand lettering.

HB

- This relatively soft grade of lead is capable of dense linework and handlettering.
- HB lines erase and print well but tend to smear easily.

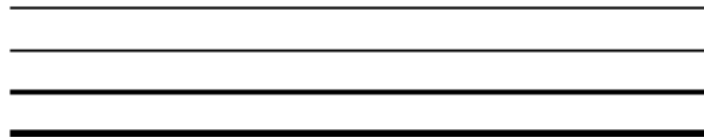
B, 2B, 3B

This soft grade of lead is used for very dense linework and handlettering.

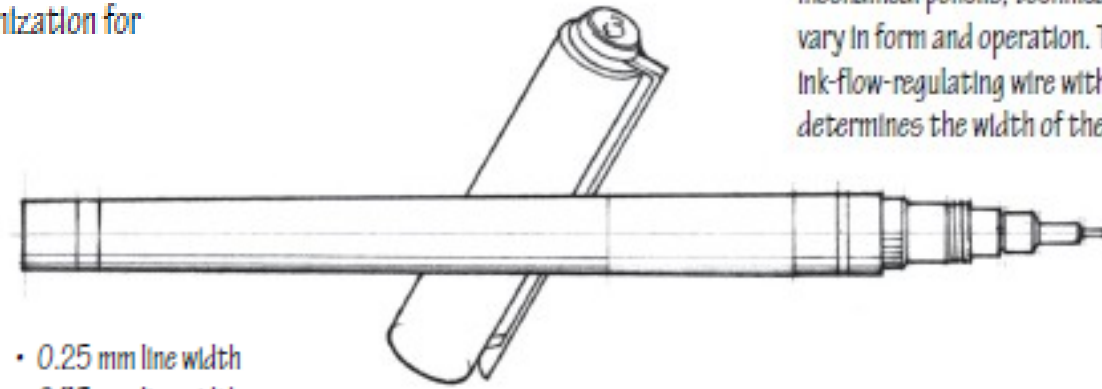
The texture and density of a drawing surface affect how hard or soft a pencil lead feels. The more tooth or roughness a surface has, the harder the lead you should use; the more dense a surface is, the softer a lead feels.

Drawing Pens

There are nine point sizes available, from extremely fine (0.13 mm) to very wide (2 mm). A starting pen set should include the four standard line widths—0.25 mm, 0.35 mm, 0.5 mm, and 0.70 mm—specified by the International Organization for Standardization (ISO).

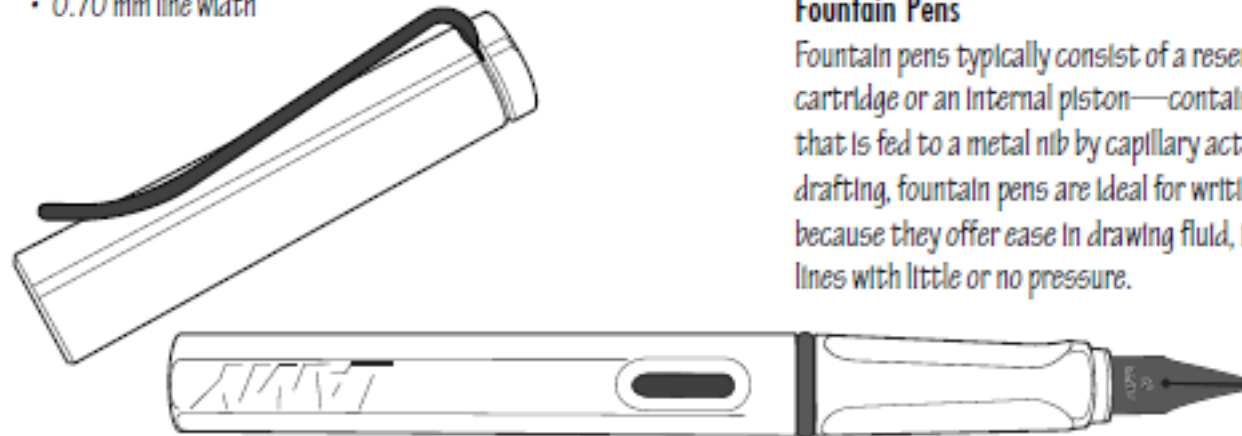


- 0.25 mm line width
- 0.35 mm line width
- 0.50 mm line width
- 0.70 mm line width



Technical Pens

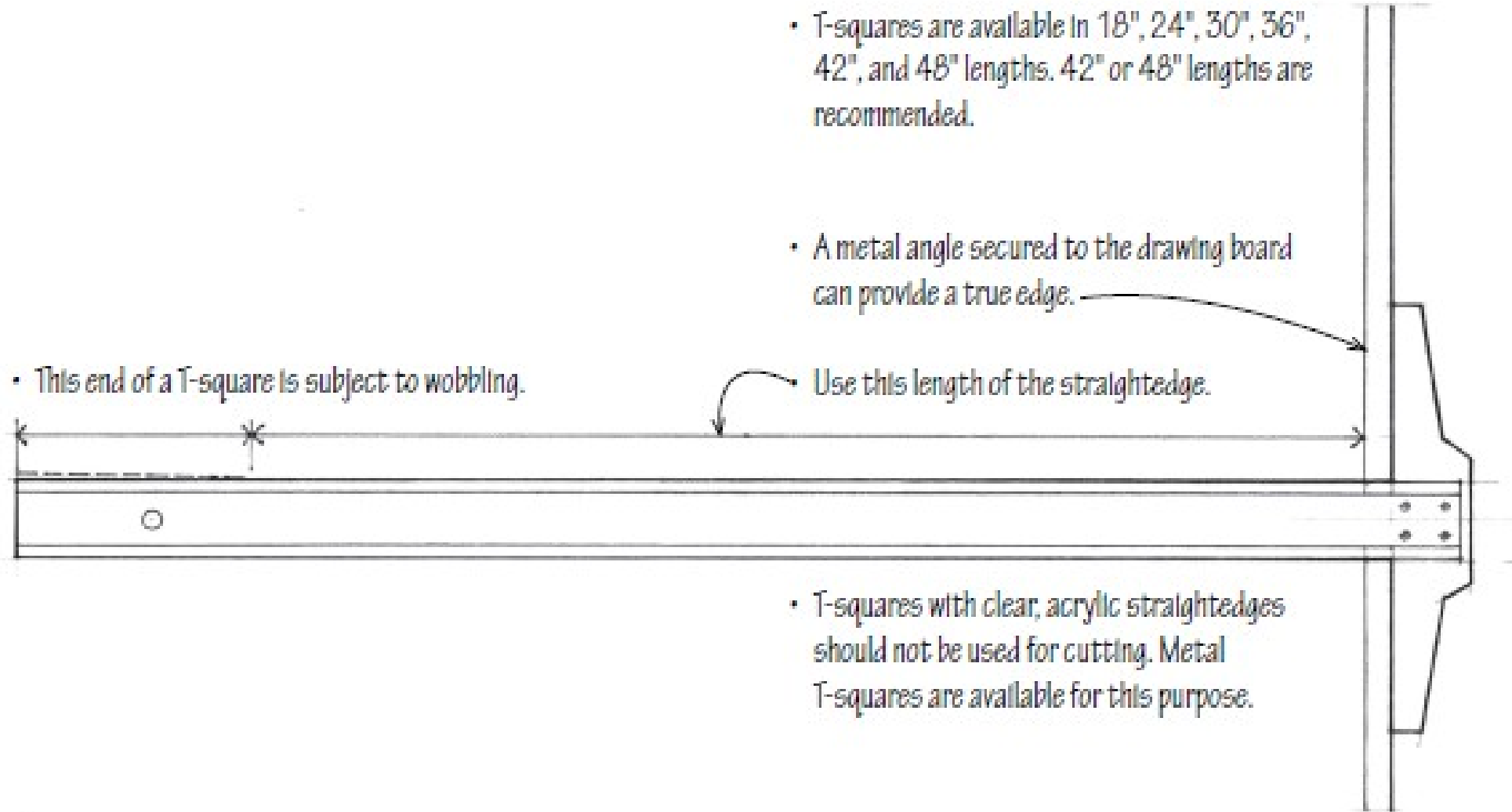
Technical pens are capable of producing precise, consistent ink lines without the application of pressure. As with lead holders and mechanical pencils, technical pens from different manufacturers vary in form and operation. The traditional technical pen uses an ink-flow-regulating wire within a tubular point, the size of which determines the width of the ink line.



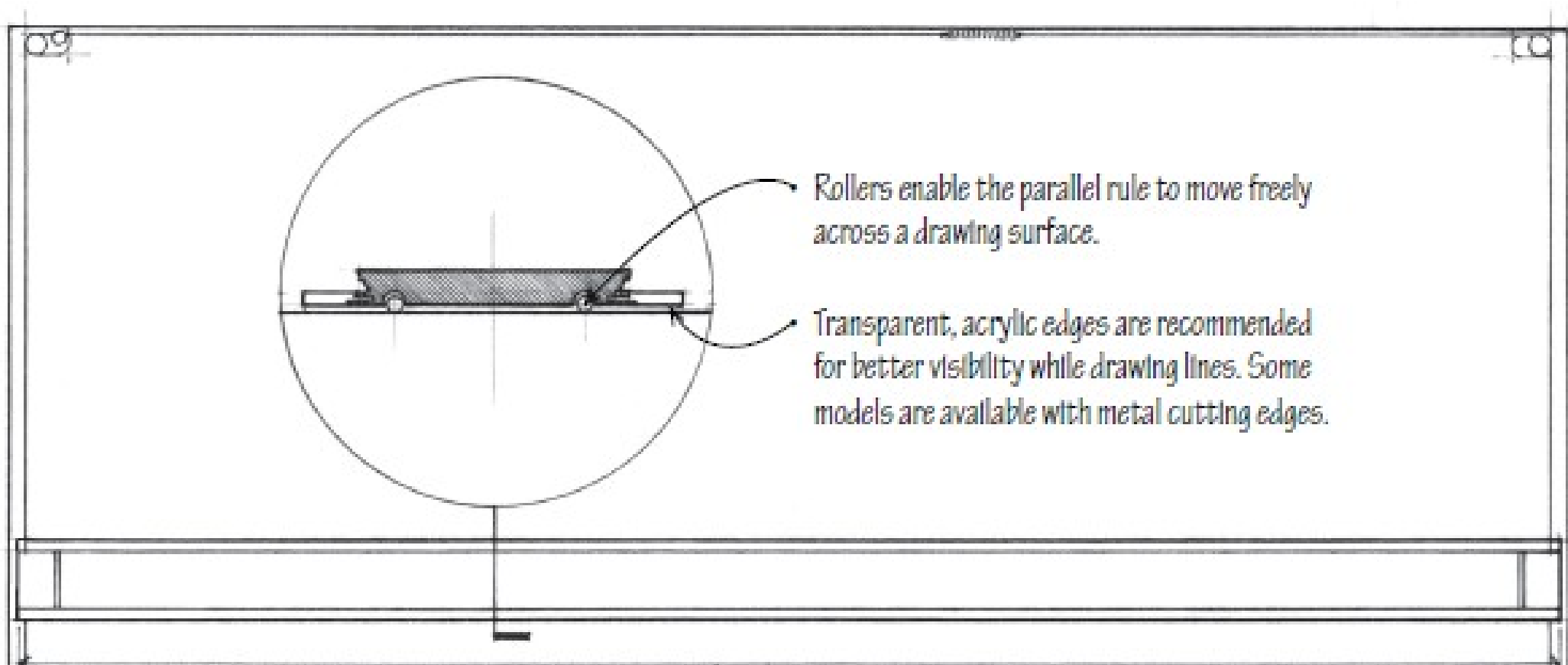
Fountain Pens

Fountain pens typically consist of a reservoir—either a disposable cartridge or an internal piston—containing a water-based ink that is fed to a metal nib by capillary action. While not suitable for drafting, fountain pens are ideal for writing and freehand sketching because they offer ease in drawing fluid, incisive, often expressive lines with little or no pressure.

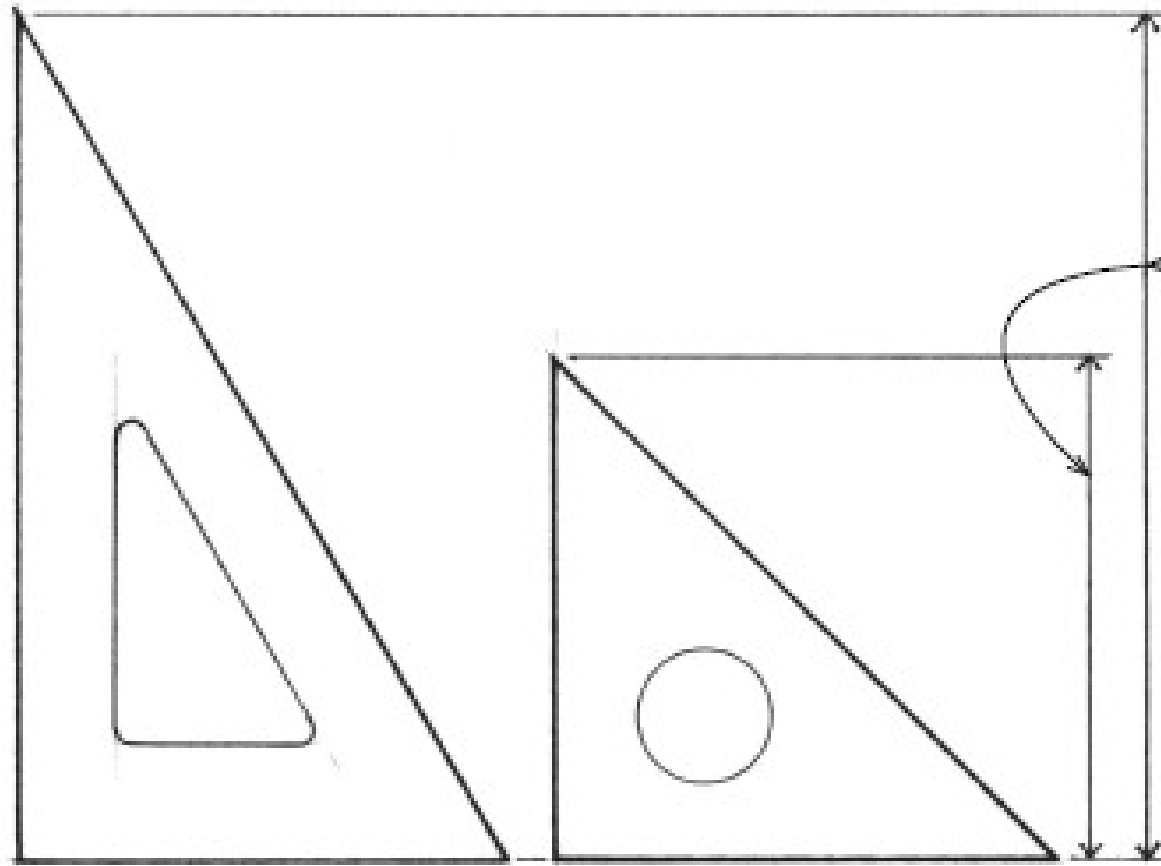
T Squares



Parallel Rules

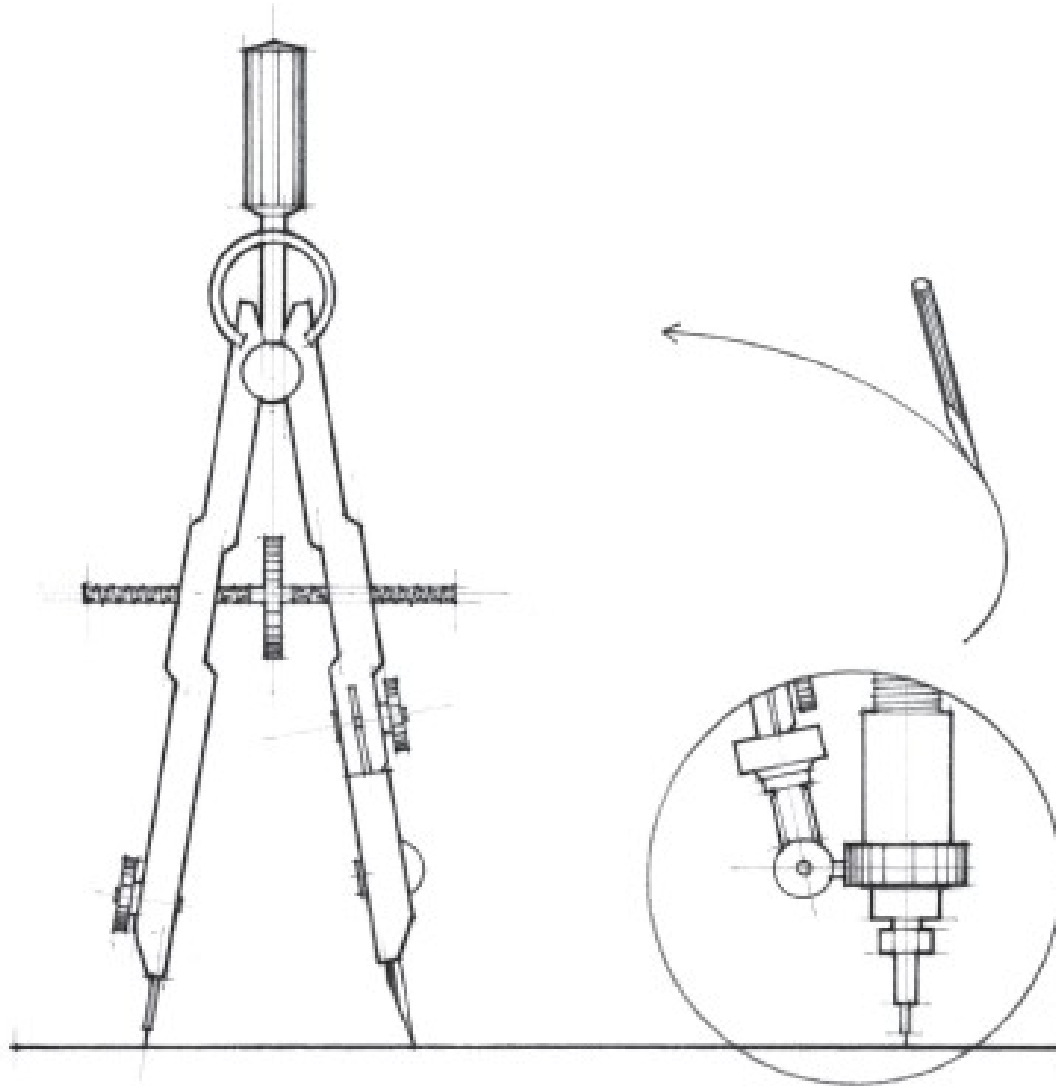


Triangles



- 4" to 24" lengths are available.
- 8" to 10" lengths are recommended.
- Small triangles are useful for crosshatching small areas and as a guide in handlettering. See page 210.
- Larger triangles are useful in constructing perspectives.

Compasses



- The compass is essential for drawing large circles as well as circles of indeterminate Radius.
 - It is difficult to apply pressure when using a compass. Using too hard a grade of lead can therefore result in too light of a line. A softer grade of lead, sharpened to a chisel point, will usually produce the sharpest line without undue pressure. A chisel point dulls easily, however, and must be sharpened often.
- An attachment allows technical pens to be used with a compass.

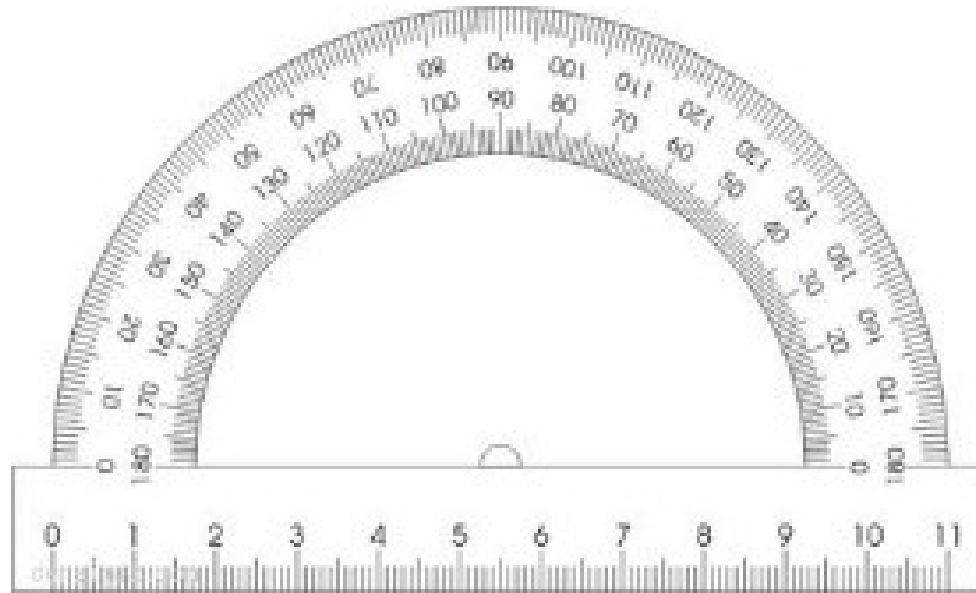
French Curves - Pistole

- A variety of French curves are manufactured to guide the drawing of irregular curves.



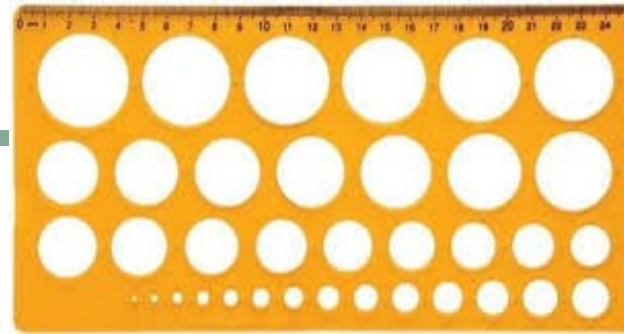
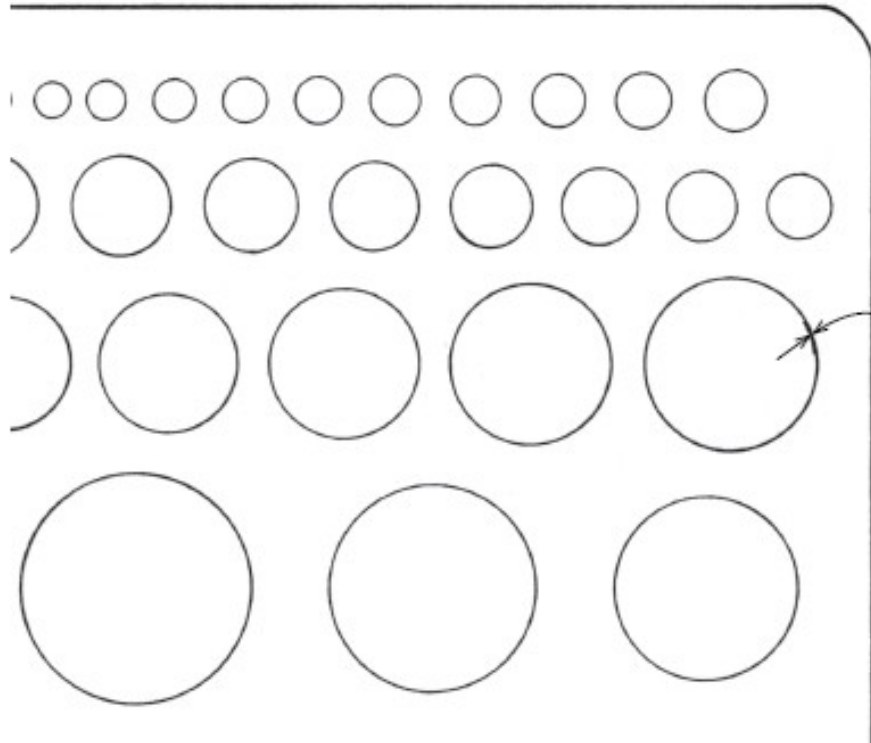
- Adjustable curves are shaped by hand and held in position to draw a fair curve through a series of points.

Protractors

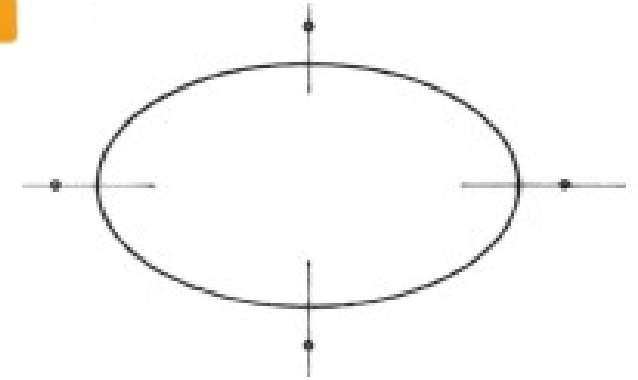


Protractors are semicircular instruments for measuring and plotting angles.

Templates



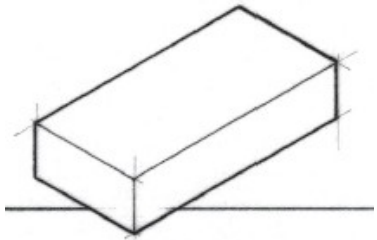
The actual size of a cutout differs from the drawn size due to the thickness of the lead shaft or pen tip.



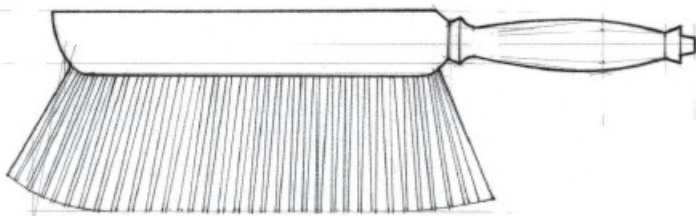
Some templates have dimples to raise them off of the drawing surface while inking.

Templates have cutouts to guide the drawing of predetermined shapes.

Erasers and Brushes

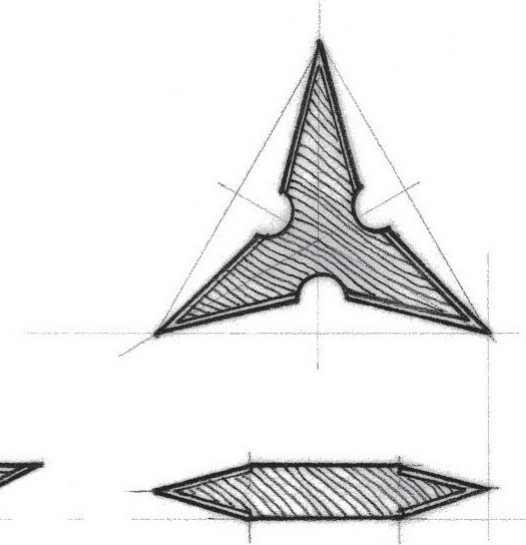
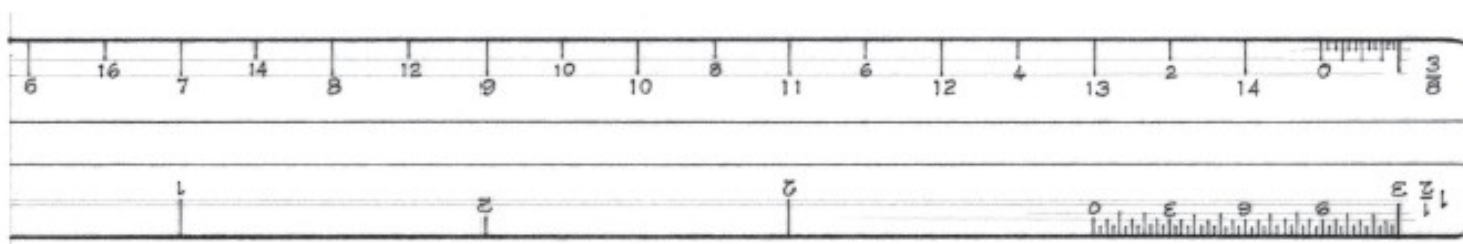


use the softest eraser compatible with the medium and the drawing surface



Drafting brushes help keep the drawing surface clean of erasure fragments and other particles.

Drawing Scales



Drawing Board

A drawing board is sized according to the output of a standard paper size, generally being

A0 – which provides a working area of 1270mmx 920mm
or

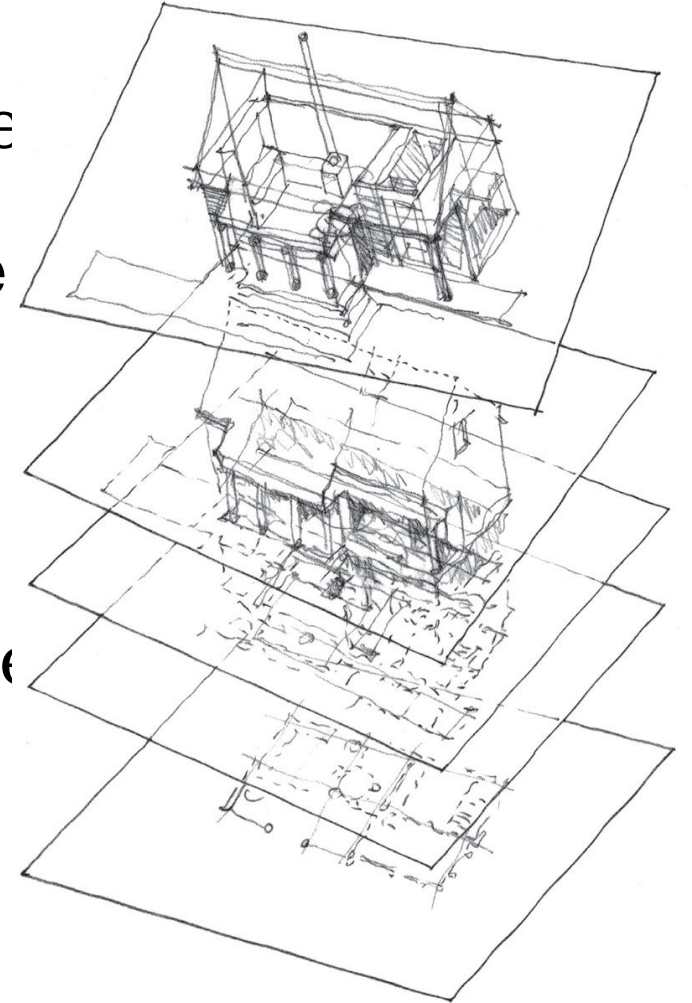
A1 – which provides a working area of 920mm x 650mm.

There are also desktop drawing boards available at the **size of A3.**

The drawing boards are generally made out of MDF, plastic and melamine. The drawing board comes with a horizontal bar for drawing horizontal lines, referred to as either a T-square or a parallel bar or parallel motion. A parallel motion is preferable to a T-square and are more common.

Drawing Surfaces - Paper

- **Tracing papers** are characterized by transparency, whiteness, and tooth or surface grain. Fine-tooth papers are generally better for inking, whereas medium-tooth papers are more suitable for pencil work.
- **Sketch-Grade Tracing Paper** Inexpensive, lightweight tissue is available in white, cream, and yellow or buff colors in rolls 12", 18", 24", 30", and 36" wide. Lightweight tracing paper is used for freehand sketching, overlays, and studies. Use only soft leads or markers; hard leads can tear the thin paper easily.



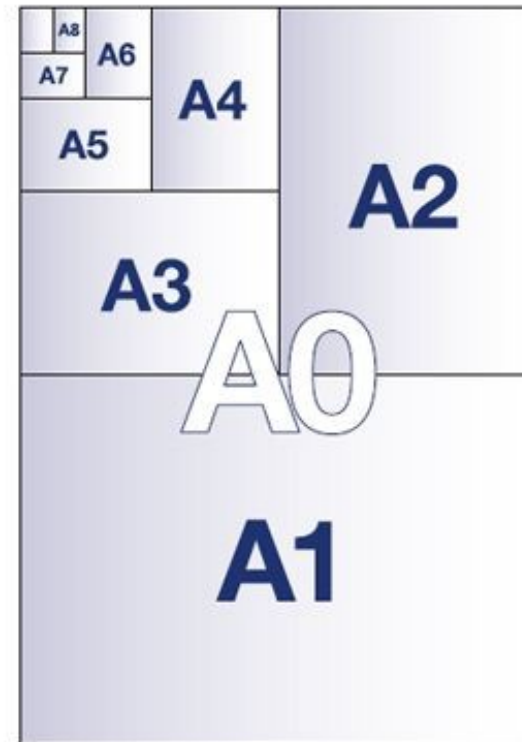
International Paper Sizes

- The international paper size standard is ISO 216. ISO paper sizes are all based on a single aspect ratio of the square root of 2. (The height / width ratio of the

INTERNATIONAL PAPER SIZES

A series

Size	mm x mm	in x in
0	841 x 1189	33.1 x 46.8
1	594 x 841	23.4 x 33.1
2	420 x 594	16.5 x 23.4
3	297 x 420	11.7 x 16.5
4	210 x 297	8.3 x 11.7
5	148 x 210	5.8 x 8.3
6	105 x 148	4.1 x 5.8
7	74 x 105	2.9 x 4.1
8	52 x 74	2.0 x 2.9
9	37 x 52	1.5 x 2.0
10	26 x 37	1.0 x 1.5



Ders Malzemeleri

- T-cetveli
- 2 adet gönye (45°ve 30-60°)
- 3 adet kurşun kalem (H-HB-2B)
 - 0,3-0,5-0,7 versalit kalem
- ~~3 adet rapido kalem (0.2-0.3-0.5)~~
- Vida ayarlı pergel ve daire şablonu
- Açıölçer ve ~~Pistole~~
- Silgi, kalemtıraş ve selobant
- 80 gr kağıt (35x50 cm)
- 200 gr Teknik resim kağıdı (schoeller, canson / A4 ve A3)

Her ders için gerekli
kağıt boyutu
önceden
duyurulacaktır.

Derse Malzemesiz Gelmeyiniz !!!